

INSTRUCTION MANUAL

Hollow Chisel Mortiser (Model 14-651)



PART NO. 910209 - 04-28-04
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To learn more about DELTA MACHINERY
visit our website at: www.deltamachinery.com.

For Parts, Service, Warranty or other Assistance,

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ESPAÑOL: PÁGINA 15

SAFETY GUIDELINES - DEFINITIONS

This manual contains information that is important for you to know and understand. This information relates to protecting YOUR SAFETY and PREVENTING EQUIPMENT PROBLEMS. To help you recognize this information, we use the symbols below. Please read the manual and pay attention to these sections.

- DANGER** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
- WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
- CAUTION** Used without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

WARNING **SOME DUST CREATED BY POWER SANDING, SAWING, GRINDING, DRILLING, AND OTHER CONSTRUCTION ACTIVITIES** contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, always wear **MSHA/NIOSH** approved, properly fitting face mask or respirator when using such tools.

GENERAL SAFETY RULES



WARNING **READ AND UNDERSTAND ALL WARNINGS AND OPERATING INSTRUCTIONS BEFORE USING THIS EQUIPMENT.** Failure to follow all instructions listed below, may result in electric shock, fire, and/or serious personal injury or property damage.

IMPORTANT SAFETY INSTRUCTIONS

Woodworking can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result. Safety equipment such as guards, push sticks, hold-downs, featherboards, goggles, dust masks and hearing protection can reduce your potential for injury. But even the best guard won't make up for poor judgment, carelessness or inattention. Always use common sense and exercise caution in the workshop. If a procedure feels dangerous, don't try it. Figure out an alternative procedure that feels safer. **REMEMBER:** Your personal safety is your responsibility. For additional information please visit our website www.deltamachinery.com.

WARNING This machine was designed for certain applications only. Delta Machinery strongly recommends that this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, **DO NOT** use the machine until you have first contacted Delta to determine if it can or should be performed on the product.

Technical Service Manager
Delta Machinery
4825 Highway 45 North
Jackson, TN 38305

(IN CANADA: 505 SOUTHGATE DRIVE, GUELPH, ONTARIO N1H 6M7)

GENERAL SAFETY RULES

⚠WARNING FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS INJURY.

1. **FOR YOUR OWN SAFETY, READ THE INSTRUCTION MANUAL BEFORE OPERATING THE MACHINE.** Learning the machine's application, limitations, and specific hazards will greatly minimize the possibility of accidents and injury.
2. **WEAR EYE PROTECTION. ALWAYS USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses are NOT safety glasses. **USE CERTIFIED SAFETY EQUIPMENT.** Eye protection equipment should comply with ANSI Z87.1 standards, hearing equipment should comply with ANSI S3.19 standards, and dust mask protection should comply with MSHA/NIOSH certified respirator standards. Splinters, air-borne debris, and dust can cause irritation, injury, and/or illness.
3. **WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
4. **DO NOT USE THE MACHINE IN A DANGEROUS ENVIRONMENT.** The use of power tools in damp or wet locations or in rain can cause shock or electrocution. Keep your work area well-lit to prevent tripping or placing arms, hands, and fingers in danger.
5. **MAINTAIN ALL TOOLS AND MACHINES IN PEAK CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories. Poorly maintained tools and machines can further damage the tool or machine and/or cause injury.
6. **CHECK FOR DAMAGED PARTS.** Before using the machine, check for any damaged parts. Check for alignment of moving parts, binding of moving parts, breakage of parts, and any other conditions that may affect its operation. A guard or any other part that is damaged **should be properly repaired or replaced.** Damaged parts can cause further damage to the machine and/or injury.
7. **KEEP THE WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
8. **KEEP CHILDREN AND VISITORS AWAY.** Your shop is a potentially dangerous environment. Children and visitors can be injured.
9. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure that the switch is in the "OFF" position before plugging in the power cord. In the event of a power failure, move the switch to the "OFF" position. An accidental start-up can cause injury.
10. **USE THE GUARDS.** Check to see that all guards are in place, secured, and working correctly to prevent injury.
11. **REMOVE ADJUSTING KEYS AND WRENCHES BEFORE STARTING THE MACHINE.** Tools, scrap pieces, and other debris can be thrown at high speed, causing injury.
12. **USE THE RIGHT MACHINE.** Don't force a machine or an attachment to do a job for which it was not designed. Damage to the machine and/or injury may result.
13. **USE RECOMMENDED ACCESSORIES.** The use of accessories and attachments not recommended by Delta may cause damage to the machine or injury to the user.
14. **USE THE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. See the Extension Cord Chart for the correct size depending on the cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
15. **SECURE THE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. Loss of control of a workpiece can cause injury.
16. **FEED THE WORKPIECE AGAINST THE DIRECTION OF THE ROTATION OF THE BLADE, CUTTER, OR ABRASIVE SURFACE.** Feeding it from the other direction will cause the workpiece to be thrown out at high speed.
17. **DON'T FORCE THE WORKPIECE ON THE MACHINE.** Damage to the machine and/or injury may result.
18. **DON'T OVERREACH.** Loss of balance can make you fall into a working machine, causing injury.
19. **NEVER STAND ON THE MACHINE.** Injury could occur if the tool tips, or if you accidentally contact the cutting tool.
20. **NEVER LEAVE THE MACHINE RUNNING UNATTENDED. TURN THE POWER OFF.** Don't leave the machine until it comes to a complete stop. A child or visitor could be injured.
21. **TURN THE MACHINE "OFF", AND DISCONNECT THE MACHINE FROM THE POWER SOURCE** before installing or removing accessories, before adjusting or changing set-ups, or when making repairs. An accidental start-up can cause injury.
22. **MAKE YOUR WORKSHOP CHILDPREOF WITH PADLOCKS, MASTER SWITCHES, OR BY REMOVING STARTER KEYS.** The accidental start-up of a machine by a child or visitor could cause injury.
23. **STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE. DO NOT USE THE MACHINE WHEN YOU ARE TIRED OR UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR MEDICATION.** A moment of inattention while operating power tools may result in injury.
24. **TAKE PRECAUTIONS AGAINST DUST INHALATION.** The dust generated by certain woods and wood products can be injurious to your health. Always operate machinery in well-ventilated areas, and provide for proper dust removal. Use wood dust collection systems whenever possible.

ADDITIONAL SAFETY RULES FOR HOLLOW CHISEL MORTISERS

WARNING FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS INJURY.

1. **DO NOT OPERATE THIS MACHINE** until it is completely assembled and installed according to the instructions. A machine incorrectly assembled can cause serious injury.
2. **OBTAIN ADVICE** from your supervisor, instructor, or another qualified person if you are not thoroughly familiar with the operation of this machine. Knowledge is safety.
3. **FOLLOW ALL WIRING CODES** and recommended electrical connections to prevent shock or electrocution.
4. **SECURE THE MACHINE TO A SUPPORTING SURFACE.** Vibration can cause the machine to slide, walk, or tip over.
5. **NEVER START THE MACHINE BEFORE CLEARING THE TABLE OF ALL OBJECTS** (tools, scrap pieces, etc.). Debris can be thrown at high speed.
6. **NEVER START THE MACHINE** with the drill bit or cutting tool against the workpiece. Loss of control of the workpiece can cause serious injury.
7. **PROPERLY LOCK THE DRILL BIT OR CUTTING TOOL IN THE UNIT** before operating this machine.
8. **ADJUST** the depth stop to avoid drilling into the table.
9. **DO NOT** attempt to mortise material that does not have a flat surface, unless a suitable support is used.
10. **USE ONLY DRILL BITS, CUTTING TOOLS, OR OTHER ACCESSORIES** with shank size recommended in your instruction manual. The wrong size accessory can cause damage to the machine and/or serious injury.
11. **USE ONLY DRILL BITS OR CUTTING TOOLS** that are not damaged. Damaged items can cause malfunctions that lead to injuries.
12. **USE RECOMMENDED SPEEDS** for all operations. Other speeds may cause the machine to malfunction causing damage to the machine and/or serious injury.
13. **AVOID AWKWARD OPERATIONS AND HAND POSITIONS.** A sudden slip could cause a hand to move into the bit.
14. **KEEP ARMS, HANDS, AND FINGERS** away from the bit. Serious injury to the hand can occur.
15. **ALWAYS** position the holddown directly over the workpiece to prevent the workpiece from lifting during operation. Loss of control of the workpiece can cause serious injury.
16. **TURN THE MACHINE “OFF” AND WAIT FOR THE DRILL BIT, CUTTING TOOL, OR SANDING DRUM TO STOP TURNING** prior to cleaning the work area, removing debris, removing or securing work-piece, or changing the angle of the table. A moving drill bit or cutting tool can cause serious injury.
17. **PROPERLY SUPPORT LONG OR WIDE** work-pieces. Loss of control of the workpiece can cause severe injury.
18. **NEVER PERFORM LAYOUT, ASSEMBLY OR SET-UP WORK** on the table/work area when the machine is running. Serious injury can result.
19. **TURN THE MACHINE “OFF”,** disconnect the machine from the power source, and clean the table/work area before leaving the machine. **LOCK THE SWITCH IN THE “OFF” POSITION** to prevent unauthorized use. Someone else might accidentally start the machine and cause serious injury to themselves.
20. **ADDITIONAL INFORMATION** regarding the safe and proper operation of power tools (i.e. a safety video) is available from the Power Tool Institute, 1300 Sumner Avenue, Cleveland, OH 44115-2851 (www.powertoolinstitute.com). Information is also available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201. Please refer to the American National Standards Institute ANSI 01.1 Safety Requirements for Woodworking Machines and the U.S. Department of Labor OSHA 1910.213 Regulations.

SAVE THESE INSTRUCTIONS.

**Refer to them often
and use them to instruct others.**

POWER CONNECTIONS

A separate electrical circuit should be used for your machines. This circuit should not be less than #12 wire and should be protected with a 20 Amp time lag fuse. If an extension cord is used, use only 3-wire extension cords which have 3-prong grounding type plugs and matching receptacle which will accept the machine's plug. Before connecting the machine to the power line, make sure the switch is in the "OFF" position and be sure that the electric current is of the same characteristics as indicated on the machine. All line connections should make good contact. Running on low voltage will damage the machine.

DANGER DO NOT EXPOSE THE MACHINE TO RAIN OR OPERATE THE MACHINE IN DAMP LOCATIONS.

MOTOR SPECIFICATIONS

Your machine is wired for 120 volt, 60 HZ alternating current. Before connecting the machine to the power source, make sure the switch is in the "OFF" position.

GROUNDING INSTRUCTIONS

DANGER THIS MACHINE MUST BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK.

1. All grounded, cord-connected machines:

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This machine is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the machine is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding type plugs and matching 3-conductor receptacles that accept the machine's plug, as shown in Fig. A.

Repair or replace damaged or worn cord immediately.

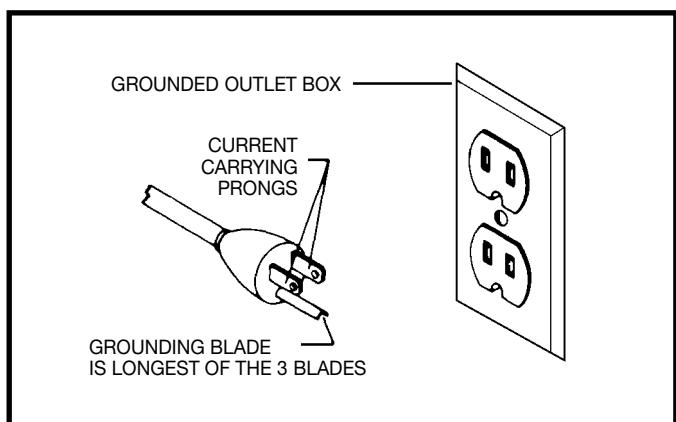


Fig. A

2. Grounded, cord-connected machines intended for use on a supply circuit having a nominal rating less than 150 volts:

If the machine is intended for use on a circuit that has an outlet that looks like the one illustrated in Fig. A, the machine will have a grounding plug that looks like the plug illustrated in Fig. A. A temporary adapter, which looks like the adapter illustrated in Fig. B, may be used to connect this plug to a matching 2-conductor receptacle as shown in Fig. B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box. Whenever the adapter is used, it must be held in place with a metal screw.

NOTE: In Canada, the use of a temporary adapter is not permitted by the Canadian Electric Code.

DANGER In all cases, make certain the receptacle in question is properly grounded. If you are not sure, have a qualified electrician check the receptacle.

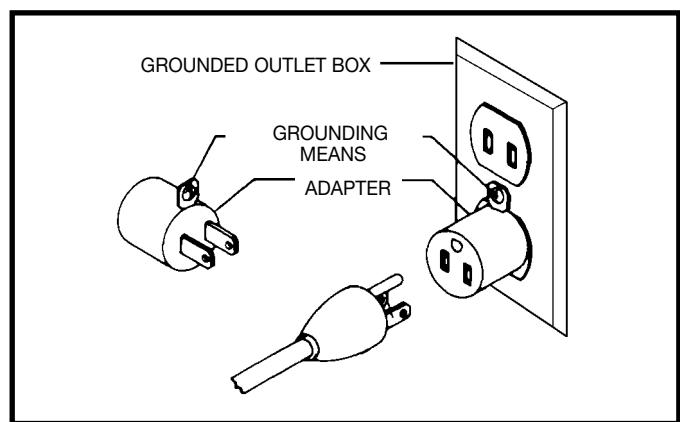


Fig. B

EXTENSION CORDS

CAUTION Use proper extension cords. Make sure your extension cord is in good condition and is a 3-wire extension cord which has a 3-prong grounding type plug and matching receptacle which will accept the machine's plug. When using an extension cord, be sure to use one heavy enough to carry the current of the machine. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. Fig. D-1 or D-2, shows the correct gauge to use depending on the cord length. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord. WRITER NOTE: IF DOUBLE INSULATED DELETE 3-PRONG GROUNDING INSTRUCTION WORDING.

MINIMUM GAUGE EXTENSION CORD			
RECOMMENDED SIZES FOR USE WITH STATIONARY ELECTRIC MACHINES			
Ampere Rating	Volts	Total Length of Cord in Feet	Gauge of Extension Cord
0-6	120	up to 25	18 AWG
0-6	120	25-50	16 AWG
0-6	120	50-100	16 AWG
0-6	120	100-150	14 AWG
6-10	120	up to 25	18 AWG
6-10	120	25-50	16 AWG
6-10	120	50-100	14 AWG
6-10	120	100-150	12 AWG
10-12	120	up to 25	16 AWG
10-12	120	25-50	16 AWG
10-12	120	50-100	14 AWG
10-12	120	100-150	12 AWG
12-16	120	up to 25	14 AWG
12-16	120	25-50	12 AWG
12-16	120	GREATER THAN 50 FEET NOT RECOMMENDED	

Fig. D

OPERATING INSTRUCTIONS

FOREWORD

Delta Model 14-651 is easier to operate than a conventional drill press equipped with a mortising attachment. The model 14-651 is made of cast-iron and steel for rigidity and stability, and comes with a standard 3-jaw type chuck for positive gripping of mortising bits.

UNPACKING AND CLEANING

Carefully unpack the machine and all loose items from the shipping container(s). Remove the protective coating from all unpainted surfaces. This coating may be removed with a soft cloth moistened with kerosene (do not use acetone, gasoline or lacquer thinner for this purpose). After cleaning, cover the unpainted surfaces with a good quality household floor paste wax.

NOTICE: The manual cover photograph illustrates the current production model. All Other illustrations are representative only and may not depict the actual color, labeling or accessories and are intended to illustrate technique only.

CARTON CONTENTS

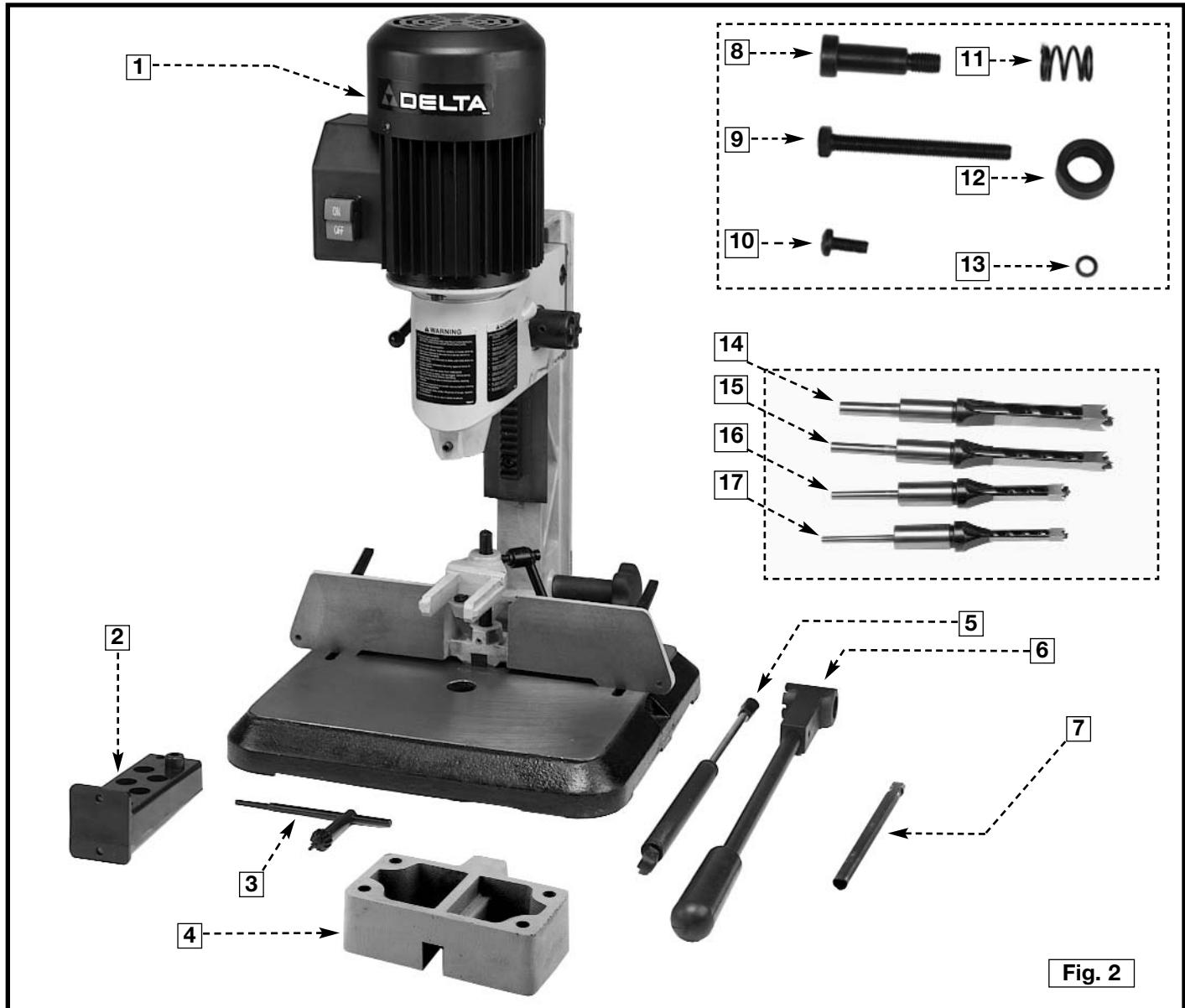


Fig. 2

1. Mortiser
2. Tool and Chisel Holder
3. Chuck Key / Wrench
4. Column Extension
5. Hydraulic Cylinder
6. Handle
7. Extended hold-down rod (use with column extension)
8. Special Screw (for raising and lowering handle)
9. M8x1.25x80mm Head Screw (4) (for assembling column extension to base)
10. M6x1x25mm Pan Head Screws (2) (for assembling tool and chisel holder)
11. Spring
12. Bushing (for use with extra long chisels)
13. M6 Lockwashers (2) (for assembling tool and chisel holder)
14. 1/2" Mortising Chisel and Bit
15. 3/8" Mortising Chisel and Bit
16. 5/16" Mortising Chisel and Bit
17. 1/4" Mortising Chisel and Bit

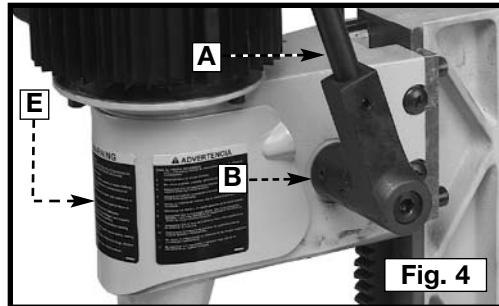
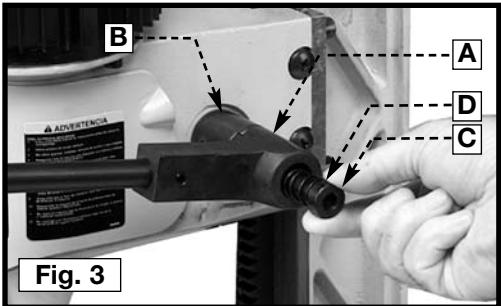
ASSEMBLY

WARNING For your own safety, do not connect the machine to the power source until the machine is completely assembled and you read and understand the entire instruction manual.

RAISING AND LOWERING HANDLE

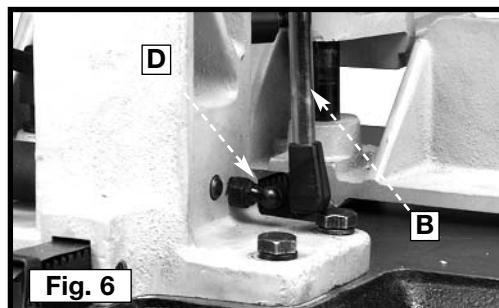
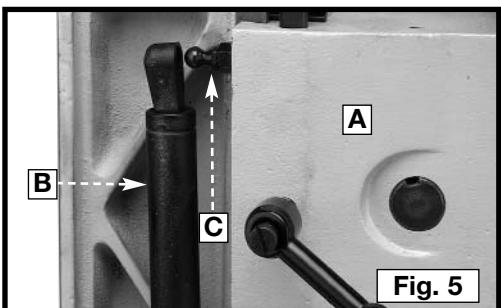
1. Attach the hub of the handle assembly (A) Fig. 3 to the end of the pinion shaft (B) and fasten the handle to the pinion shaft using the special screw (C) and spring (D).
2. Raise the mortising machine head (E) Fig. 4 to the "up" position by turning the handle (A) clockwise.

NOTE: The handle (A) is spring-loaded. Reposition it by pulling it out and moving it on pinion shaft (B).



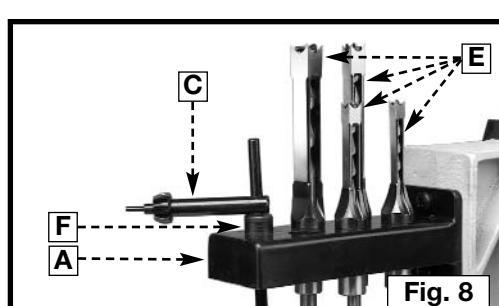
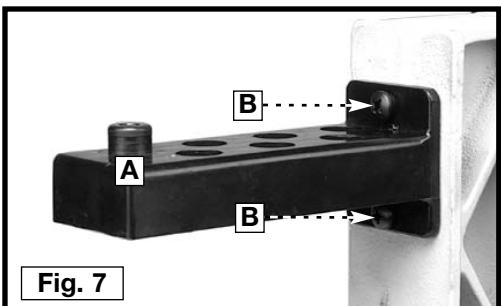
HYDRAULIC CYLINDER

Make sure that the head (A) Fig. 5 is held in the "up" position. Attach the hydraulic cylinder (B) to the two fittings, one located on the back of the head (C) Fig. 5, and the other on the column (D) Fig. 6. Push each end of the hydraulic cylinder on its fitting to secure the cylinder.



TOOL AND CHISEL HOLDER

1. Attach the tool and chisel holder (A) Fig. 7 to the back of the column, using the two M6x1x25mm screws (B) and M6 lockwashers.
2. Fig. 8 illustrates the stored chuck key/wrench (C), bushing (F) for use with extra long chisels, and chisels and bits (E).



FASTENING MACHINE TO SUPPORTING SURFACE

If during operation there is any tendency for the mortiser to tip over, slide or walk on the supporting surface, the base must be secured to the supporting surface with fasteners (not supplied), through the two holes (A) Fig. 9, located in the mortiser base.

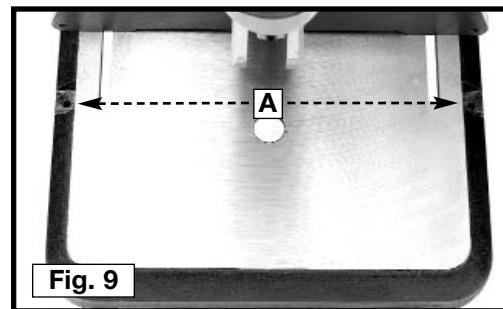


Fig. 9

ATTACHING CHISEL AND BIT

WARNING DISCONNECT MACHINE FROM POWER SOURCE.

1. Insert the bit (A) Fig. 10 in the chisel (B).

NOTE: The opening (C) on the side of the chisel (that allows chips to escape) should always face the side, never the front or rear.

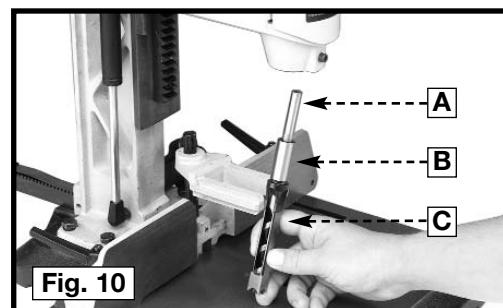


Fig. 10

2. Loosen the screw (D) Fig. 11, and push the chisel (B) up through the hole in the head as far as possible. Lower the chisel (B) 1/16" to 3/16" and tighten the set screw (D).

IMPORTANT: When inserting the chisel (B) Fig. 12 into the head, leave a space of 1/16" to 3/16" clearance (F) between the bushing (E) and the shoulder of the chisel (B).

3. Push the bit (A) Fig. 13 up through the chisel and into the chuck (G) as far as it will go. Lock the bit in the chuck using the supplied chuck key.
4. Loosen the set screw (D) Fig. 14, and push the chisel (B) against the bottom of the bushing (E), and tighten the set screw (D) to provide the proper distance between the cutting lips of the bit and the points of the chisel.

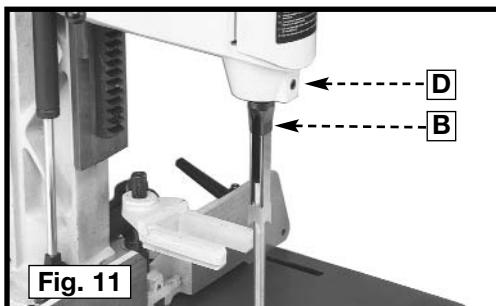


Fig. 11

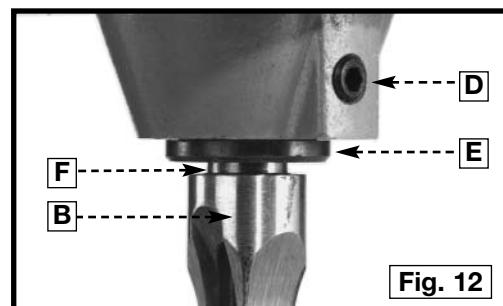


Fig. 12

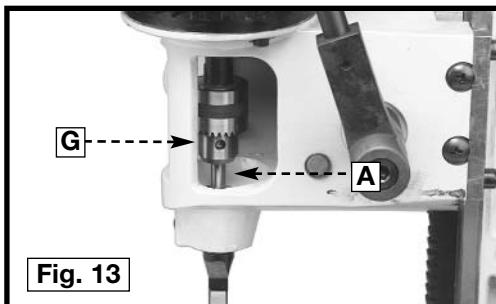


Fig. 13

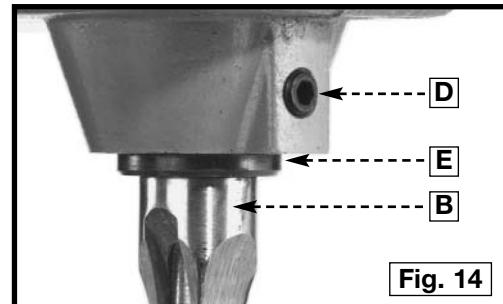


Fig. 14

5. Adjust the flat portion of the bit to a minimum of $1/16"$ below the bottom of the chisel. Certain types of wood may require an increase in this gap up to a maximum of $3/16"$.

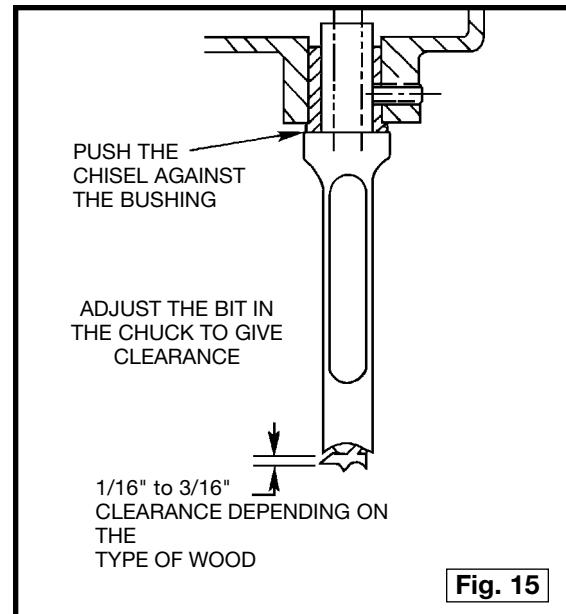


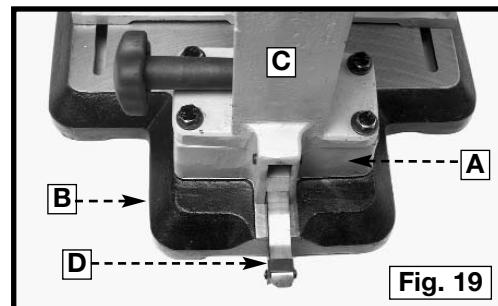
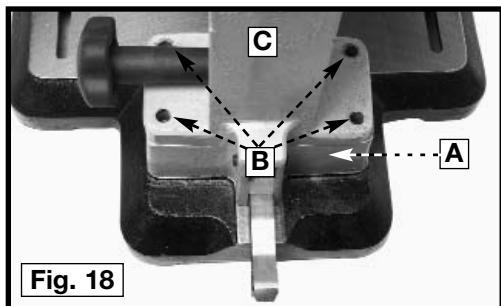
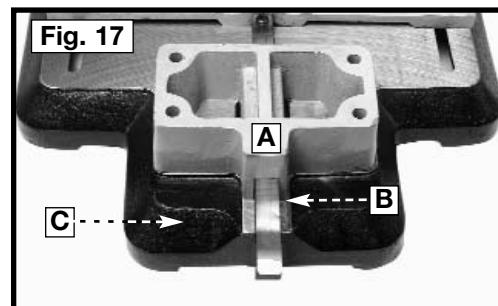
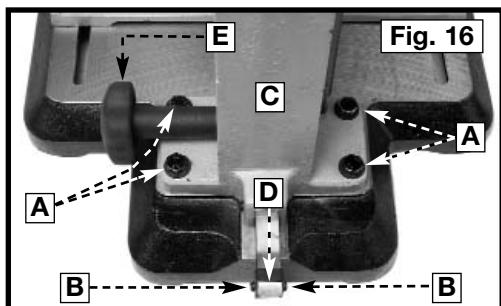
Fig. 15

ATTACHING COLUMN EXTENSION

The column can be extended for the purpose of mortising taller work pieces. To extend the column:

WARNING DISCONNECT MACHINE FROM POWER SOURCE.

1. Take out the two screws (B) Fig. 16 and remove the rack cover bracket (D).
2. Remove the four screws and flat washers (A) Fig. 16.
3. Rotate handle (E) until the column assembly (C) Fig. 16 moves off the back of the rack and base.
4. Place the column extension (A) Fig. 17 on top of the rack (B). Align the four holes in the column extension (A) Fig. 17 with the four holes in the base (C).
5. Place the column assembly (C) Fig. 18 on top of the column extension (A) and align the four holes (B) in the column assembly with the four holes in the column extension (A).
6. Place a flat washer that was removed in **STEP 2** on an M8x1.25x80mm hex head screw.
7. Insert the screw through the hole in the column assembly (C) Fig. 19 and the column extension (A), and thread it into the base (B). Repeat this process for the three remaining holes.
8. Replace the rack cover bracket (D) Fig. 19 that was removed in **STEP 1**.
9. Loosen the holdown knob (B) Fig. 20 and remove the hold-down. Loosen the set screw (C) and removed holdown rod (A) and replace with the extended hold-down rod. Tighten the set screw (C). Place the hold-down (B) on the hold-down rod and tighten the hold-down handle (B).



NOTE: Reverse the procedure to remove the column extension.

CAUTION

To prevent damage to the unit, place the rack cover over the gear. This action will prevent the cover from being trapped between the rack and the gear.

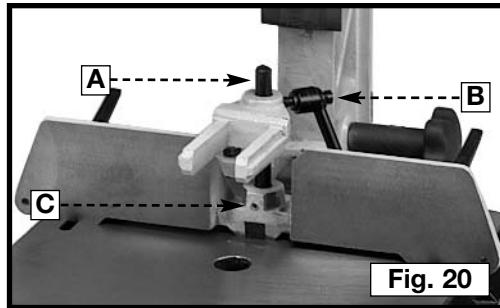


Fig. 20

OPERATING CONTROLS AND ADJUSTMENTS

STARTING AND STOPPING MORTISER

The power switch is located on the left side of the mortiser. To turn the mortiser "ON", press the green start button (A) Fig. 21. To stop the mortiser, push the red button (B).

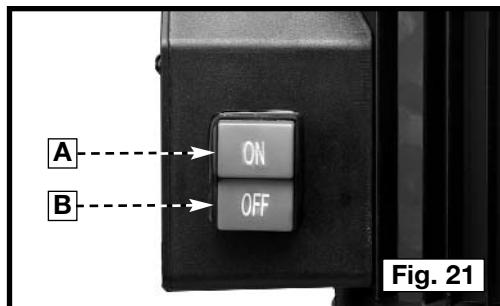


Fig. 21

LOCKING SWITCH IN THE "OFF" POSITION

When the tool is not in use, the switch should be locked in the "OFF" position to prevent unauthorized use. Insert the lockout pin (C) Fig. 22 (Delta accessory model number 50-164) through the hole in the start button (A). Place the 1/8" shank of a lock through the hole in the lockout pin and secure.

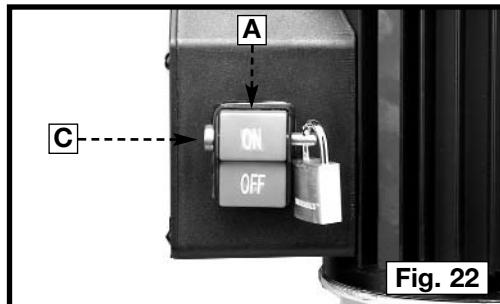


Fig. 22

DEPTH STOP ROD

A depth stop rod (A) Fig. 23 is provided to limit the depth of the chisel. To adjust the depth stop rod (A), loosen the lever (C) and lower the head until the chisel is at the desired depth. Lower the depth stop rod (A) until it contacts the top of the column (D) and tighten the lever (C).

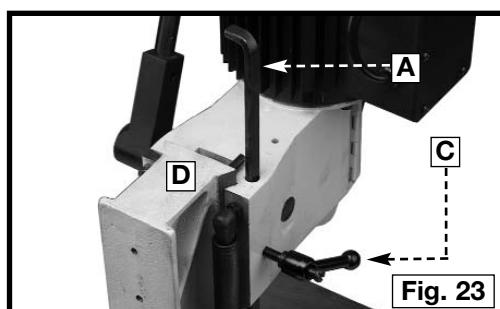


Fig. 23

FENCE

The fence (A) Fig. 24 can be moved in or out by loosening the lock handles (B), and rotating the fence rack handle (C). Move the fence to the desired position and tighten the handles (B).

NOTE: Levers (B) are spring-loaded and can be repositioned by pulling out on the lever and repositioning it on the serrated nut located underneath the lever.

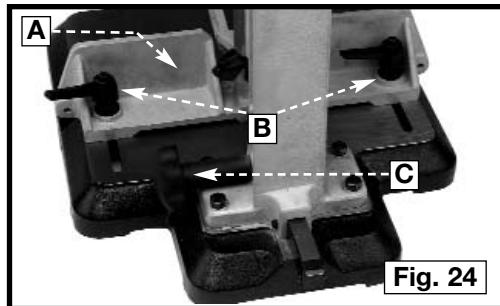


Fig. 24

HOLD-DOWN

The hold-down (C) Fig. 25 prevents the workpiece (E) from lifting as the chisel is lifted out of the hole. To adjust the hold-down, loosen the handle (F), position the hold-down so that it just touches the top of the workpiece (E), then tighten the handle. You can turn the hold-down (C) upside down to accommodate thicker workpieces.

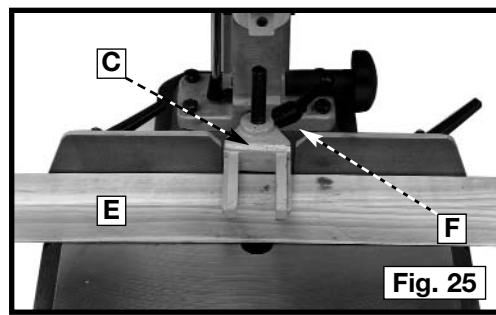


Fig. 25

CHISEL PARALLEL TO WORKPIECE

The chisel (A) Fig. 26 can be adjusted parallel to the workpiece by loosening the screw (B) and rotating the chisel until the back surface of the chisel is touching the workpiece. Tighten the screw (B).

SLIDING FIT BETWEEN HEAD AND COLUMN

A dovetail gib (A) Fig. 27 ensures a good sliding fit between the head and the column when the head is raised and lowered. Make the adjustment by loosening the two screws (B) and turning the adjusting screws (C). Tighten the two screws (B).

NOTE: The adjustment is correct when no side movement between the gib and the column is evident. Adjust the gib so that it is not so tight as to restrict the sliding movement or so loose that it affects accuracy.

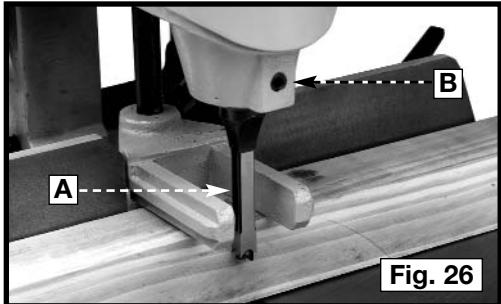


Fig. 26

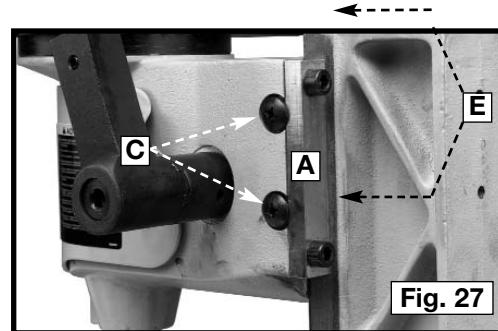


Fig. 27

OPERATIONS

1. Keep chisels and bits sharp.
2. Fig. 28 illustrates a typical mortising operation. Note that the opening (A) in the chisel is to the right. Move your workpiece from left to right for subsequent cuts to allow chips to escape freely.
3. Hold the workpiece firmly against the fence. Ensure that the hold-down (B) Fig. 28 is properly adjusted. The rate of penetration of the chisel must be fast enough to prevent burning at the tip of the bit, but not too fast as to stall the motor. You may encounter smoke from the bit or the workpiece. The smoke created is a natural operating occurrence, caused by friction and the burning of resins. Bluing of the chisel after initial use is not indicative of a dull chisel, but rather is a combination of friction and built-up resin on the cutting face of the chisel. A dull chisel can be detected by the amount of excess force required to complete a cut.
4. When performing a through mortise, place a thin piece of wood between the workpiece and the table to prevent "chip-out" at the bottom of the mortise.

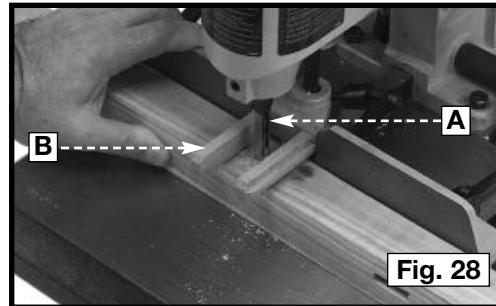


Fig. 28

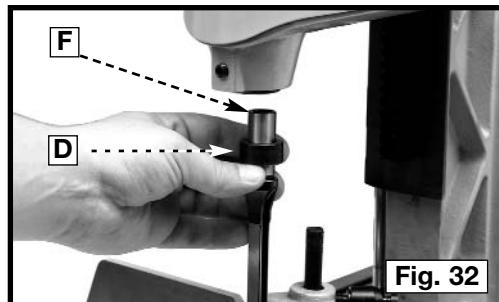
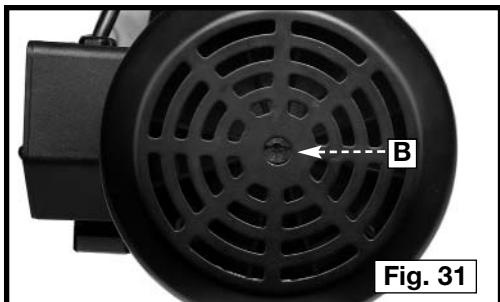
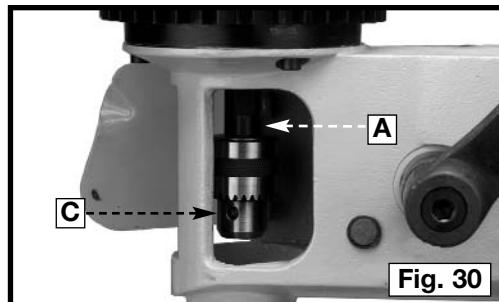
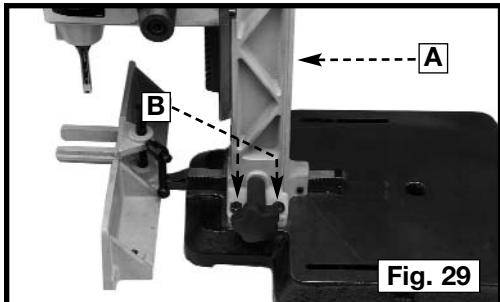
ROTATING COLUMN 180 DEGREES

The column (A) Fig. 29 can be rotated 180 degrees for special cuts off of the table. To rotate the column, remove four screws, two of which are shown at (B), rotate the column (A) 180 degrees, and replace the four screws (B).

WARNING The base must be secured to a supporting surface.

USING BITS WITH EXTRA LONG SHANKS

When using bits with extra long shanks, remove the extension (A) Fig. 30. Look on the top of the motor and insert a screwdriver into the slot (B) in the end of the armature shaft. Use a chuck key to unscrew and remove chuck (C) Fig. 30 and extension (A). Remove the extension (A) from the chuck (C) and replace the chuck (C) on the end of the motor shaft. You can also use the chisel spacer (D) Fig. 32 on the chisel shank (F) and insert the chisel into the chisel holder. Tighten the chisel holder securely.



MAINTENANCE

KEEP MACHINE CLEAN

Periodically blow out all air passages with dry compressed air. All plastic parts should be cleaned with a soft damp cloth. NEVER use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material.

WARNING Wear ANSI Z87.1 safety glasses while using compressed air.

FAILURE TO START

Should your machine fail to start, check to make sure the prongs on the cord plug are making good contact in the outlet. Also, check for blown fuses or open circuit breakers in the line.

LUBRICATION

Apply household floor paste wax to the machine table and extension table or other work surface weekly.

PROTECTING CAST IRON FROM RUST

To clean and protect cast iron tables from rust, you will need the following materials: 1 pushblock from a jointer, 1 sheet of medium Scotch-Brite™ Blending Hand Pad, 1 can of WD-40®, 1 can of degreaser, 1 can of TopCote® Aerosol. Apply the WD-40 and polish the table surface with the Scotch-Brite pad using the pushblock as a hold-down. Degrease the table, then apply the TopCote® accordingly.

ACCESSORIES

A complete line of accessories is available from your Delta Supplier, Porter-Cable • Delta Factory Service Centers, and Delta Authorized Service Stations. Please visit our Web Site www.deltamachinery.com for a catalog or for the name of your nearest supplier.

WARNING Since accessories other than those offered by Delta have not been tested with this product, use of such accessories could be hazardous. For safest operation, only Delta recommended accessories should be used with this product.



PARTS, SERVICE OR WARRANTY ASSISTANCE

All Delta Machines and accessories are manufactured to high quality standards and are serviced by a network of Porter-Cable • Delta Factory Service Centers and Delta Authorized Service Stations. To obtain additional information regarding your Delta quality product or to obtain parts, service, warranty assistance, or the location of the nearest service outlet, please call 1-800-223-7278 (In Canada call 1-800-463-3582).



Two Year Limited New Product Warranty

Delta will repair or replace, at its expense and at its option, any new Delta machine, machine part, or machine accessory which in normal use has proven to be defective in workmanship or material, provided that the customer returns the product prepaid to a Delta factory service center or authorized service station with proof of purchase of the product within two years and provides Delta with reasonable opportunity to verify the alleged defect by inspection. For all refurbished Delta product, the warranty period is 180 days. Delta may require that electric motors be returned prepaid to a motor manufacturer's authorized station for inspection and repair or replacement. Delta will not be responsible for any asserted defect which has resulted from normal wear, misuse, abuse or repair or alteration made or specifically authorized by anyone other than an authorized Delta service facility or representative. Under no circumstances will Delta be liable for incidental or consequential damages resulting from defective products. This warranty is Delta's sole warranty and sets forth the customer's exclusive remedy, with respect to defective products; all other warranties, express or implied, whether of merchantability, fitness for purpose, or otherwise, are expressly disclaimed by Delta.

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